



0000100816

ORIGINAL

RECEIVED

2009 JUL 20 P 4: 10

AZ CORP COMMISSION  
DOCKET CONTROL

Dennis E. Doelle, D.D.S  
7223 E. Carefree Drive  
P. O. Box 2506  
Carefree, Arizona 85377

**BEFORE THE ARIZONA CORPORATION COMMISSION**

IN THE MATTER OF THE	)	DOCKET NO: SW-02361A-08-0609
APPLICATION OF BLACK MOUNTAIN	)	
SEWER CORPORATION, FOR A	)	
DETERMINATION OF THE FAIR	)	
VALUE OF ITS UTILITY PLANT AND	)	
PROPERTY AND FOR INCREASES IN	)	
ITS RATES AND CHARGES FOR	)	
UTILITY SERVICE BASED THEREON.	)	INTERVENOR'S TESTIMONY
_____	)	AND EXHIBITS

Arizona Corporation Commission  
**DOCKETED**  
JUL 23 2009

DOCKETED BY	
-------------	--

## TABLE OF CONTENTS

I. INTRODUCTION AND QUALIFICATIONS.....	1
II. HISTORICAL PERSPECTIVE AND RESEARCH.....	2
III. PROBLEMS WITH CLASSIFICATION OF CUSTOMERS USING ARBITRARY TABLES.....	3
IV. PROBLEMS WITH DETERMINING SEWER RATES FROM ARBITRARY TABLES OF ESTIMATED WATER USE.....	4
V. SUMMARY.....	6
VI. EXHIBITS.....	7

## **INTRODUCTION AND QUALIFICATIONS**

I am an owner of a commercial office building located at 7223 E. Carefree Drive in Carefree, Arizona. I am a health care provider who has practiced general dentistry at this location for the past 30 years. During that time I have been a customer of the Black Mountain Sewer Corporation ("BMSC" or "the Company") which was previously named Boulders Carefree Sewer Corporation ("the Company").

I am interested in this application for a rate increase because of my experience with the ramifications of a prior rate increase by the Company that significantly impacted my business. After the approval of a rate increase for the Company in 1995, my utility rate increased over 300 percent. I conducted exhaustive research and investigation at that time into the methods used by the Company to classify their customers as a means of determining rates.

I have a genuine concern with the specific methodology proposed in this rate application to determine and calculate new commercial sewer rates.

## HISTORICAL PERSPECTIVE AND RESEARCH

In November 1996, I filed a complaint with the Arizona Corporation Commission. This was followed by an amended complaint, as I gathered additional information, in January 1997. These complaints addressed discrimination in classification of customers and the application of rate increases based on inaccuracies in engineering bulletin tables. That complaint resulted in Decision #60258 in 1997 which provided for a reclassification of my business.

Upon researching the basis for determining new commercial rates that became effective in September 1995, I became aware of Engineering Bulletin #12 published by the Arizona Department of Environmental Quality in June 1989. This is the same publication that BMSC is proposing be used to determine new commercial rates in 2009.<sup>1</sup>

I was able, in 1996, to contact the original authors, Prabnat Bhargava and James Walters, who were responsible for drafting that publication. From them I obtained affidavits explaining the intent of the publication and why it would not apply to the specific nature of my business. I also contacted the Arizona Department of Environmental Quality to determine an up to date assessment of the Engineering Bulletin #12. I received correspondence from ADEQ that confirms and supports the opinion of the authors of Engineering Bulletin #12.

Since learning of this new rate increase application by BMSC, I have conducted additional ongoing inquiry into the status of Bulletin #12 and other methods used by waste management companies to determine and calculate rates for their customers.

---

<sup>1</sup>Testimony of Thomas J. Bourassa, page 16, footnote #4.

## PROBLEMS WITH CLASSIFICATION OF CUSTOMERS USING ARBITRARY

### TABLES

The BMSC is citing a prior commission order, and proposes, as part of the rate increase application, the classification of commercial customers based on the same document used in the 1995 rate increase, Engineering Bulletin #12. (ADEQ June, 1989). This bulletin provides a breakdown of certain types of commercial establishments.

The problems with using Engineering Bulletin #12 to classify commercial customers are:

- The table in Bulletin #12 does not cover every type of commercial establishment and omits many common establishments. Included in these omissions are banks and brokerage firms, pharmacies, health clubs and spas, coffee shops, health clinics and most professional service providers (physicians, chiropractors, veterinarians, accountants, tax preparers, lawyers, optometrists).
- A classification system for customers based on incomplete tables of establishments has the potential to suggest the appearance of discrimination among customers by not having the majority of the customer base included.
- In the past, if a customer class was not included on Engineering Bulletin #12, the company would create their own new classification with often "special" rates. These "special" rates invite complaints and protests arguing the merits and validity of class distinctions.
- Customers classified by tables such as Engineering Bulletin #12 may not possess the characteristics intended by the original creators of the ADEQ classifications. Technology and water generating systems are constantly being created and improved to significantly conserve the use of water by businesses. There is no better example of this than the evolution of new dental delivery systems that have dramatically decreased water usage.

**PROBLEMS WITH DETERMINING SEWER RATES FROM ARBITRARY  
TABLES OF ESTIMATED WATER USE.**

The BMSC, in this application for a rate increase is citing a prior commission order that they imply authorizes them to use ADEQ Bulletin #12 to determine gallons of water used by various classes of commercial customers.

The problems with ADEQ Bulletin #12 to estimate wastewater discharge are:

- The document itself is now 20 years old and contains data compiled from the 1980's.
- ADEQ Bulletin #12 has information that was not adjusted for and has not considered updates in technology and delivery systems. For example, dental offices prior to the 1980's had cuspidors that emitted a constant stream of water into a basin next to the patient chair. Most dental offices as we enter the year 2010 have no cuspidors and use less than 1 gallon of water per chair per day. A more universal example are the many restaurants and coffee houses now organized around take out and drive thru operations. Are the number of seats in those facilities the best measure of water usage?
- ADEQ Bulletin #12 does not take into consideration water conservation efforts and low flow devices that have much more appeal and universal application than they did in the 1980's.
- Using ADEQ Bulletin #12 for estimating wastewater discharge is a mis-application of the original intent of that document. ADEQ Bulletin #12 was not written and was never intended to be used for estimating discharges into a commercial sewer system. The complete title of the Bulletin is Minimum Requirements for the Design and Installation of Septic Tank Disposal Systems. I was informed 13 years ago in correspondence from the Arizona Department of Environmental Quality that "the higher discharge rates that appear in these tables are developed for design purposes

and can not be used for estimating discharge rates from a single facility".<sup>2</sup> The author of that correspondence, Lauren Evans, was involved in a complete revision of Engineering Bulletin #12 at the time of her writing. It was to be replaced by a series of four bulletins, all of which were being developed for the design of on-site septic systems<sup>3</sup>

- Finally, Bulletin #12 omits the most logical, prudent, factual, readily available alternative to estimating water usage by various customers.....**actual water use** data. Small communities throughout the state of Arizona commonly use this methodology. It is not unusual for small communities to be served by separate, independent water and sewer companies. The water company furnishes water use data to the sewer company which uses various formulas to calculate rates.

---

<sup>2</sup>Correspondence from Lauren Evans (ADEQ) dated August 30, 1996.

<sup>3</sup>Special Notice to Users of ADEQ Engineering Bulletin #12: Update on Revision of Bulletin #12 by Lauren Evans November 30, 1995.

## SUMMARY

1. BMSC and the Arizona Corporation Commission must consider a more rational system and basis for rate determinations than Engineering Bulletin #12.
2. BMSC should base rate determinations on a percentage of actual water use from data obtained from municipal water companies, a recognized standard utility protocol.
3. BMSC should have a rate structure that recognizes and includes efforts of its customers to conserve water. This would be reflected in water use data of businesses that have incorporated water conservation measures.

In 1997, the Commission as a part of the opinion and order for Decision #60258, that was approved by all of the Commissioners, stated "As a result of this case, it is obvious that Engineering Bulletin Number 12 may need to be updated". Perhaps it is time, now in 2009, that the more logical, factual, readily available and customary method for estimating water use be considered.

*engineering  
bulletin  
no. 12*

**Minimum Requirements for  
the Design and Installation  
of Septic Tank Systems and  
Alternative On-site Disposal Systems**



**June 1989**

**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY**

# ACKNOWLEDGEMENTS

This bulletin was prepared primarily through the efforts of Messrs. Prabhat Bhargava and James Walters, environmental engineers on the staff of the Arizona Department of Environmental Quality. Other staff members who assisted in the development of this document were Jerry A. Breckenridge, Kathleen Carson, Debra L. Daniel, David Effert, James A. Maston, Charles E. Ohr, and Gary M. Ullinskey. The concepts, perspectives and approaches described in this document also reflect the views of a select advisory committee which was formed for the purpose of providing guidance and assistance to the Department in its effort to revise Engineering Bulletin No. 12, Guidelines for Installation of Septic Tank Systems. The advisory committee consisted of:

- . Mike Block, Hydrologist, Pima Association of Governments
- . Richard Broman, City of Apache Junction
- . Bob Johnson, Pima County Planning and Development Services
- . Fred May, Maricopa Association of Governments
- . Richard McComb, City of El Mirage
- . Dr. E. L. McFarlane, Keep Sedona Beautiful
- . Dick Mettler, Home Builders Association
- . Ken Ricker, Soil Specialist, Thomas-Hardig and Associates
- . David Shephard, Sanitary Engineer
- . Dale Smith, A Septic Tank Manufacturer
- . Dr. Paul Trotta, Associate Professor, Northern Arizona University

We would also like to thank all the County Health Departments for their participation in development of this bulletin. Its preparation would have been impossible without their advice.

Finally, we would like to thank Dr. Ronald L. Miller and Lyndon Hammon for reviewing this document, Joe Drosendahl for providing graphics and Diana Kowalski and Cecilia Vela for their expertise in the typescript.

**AFFIDAVIT OF JAMES A. WALTERS**

STATE OF ARIZONA        )  
                                  ) ss.  
County of Maricopa        )

Before me, this 26 day of February, 1997, appeared James A. Walters, P.E., who after being duly sworn, deposed and said:

1. I am James A. Walters. I am a licensed professional engineer in the State of Arizona and am currently employed by the Arizona Department of Environmental Quality ("ADEQ") as a Hazardous Waste Permits Engineer. I have been employed by ADEQ continuously since 1987.

2. I earned a Bachelor's Degree in Chemical Engineering from ASU in 1968 and a Master's Degree in Chemical Engineering from ASU in 1969. I earned a Master's Degree in Environmental Engineering from USC in 1973.

3. While employed by ADEQ as an Environmental Engineer, I helped rewrite and revise Engineering Bulletin 12, at that time entitled "Guidelines for Installation of Septic Tank Systems," dated May, 1976 ("Bulletin No. 12, May 1976").

4. The revision of Bulletin No. 12, May 1976, that I participated in preparing was published by ADEQ in 1989 and entitled, "Engineering Bulletin No. 12, Minimum Requirements for the Design and Installation of Septic Tank Systems and Alternative On-Site Disposal Systems," dated June 1989 ("Bulletin No. 12, June 1989"). My name is shown in the page of Acknowledgments at Page "v" as one of the engineers primarily responsible for the rewrite which ADEQ issued as Bulletin No. 12, June 1989.

5. As part of my personal efforts in preparing Bulletin No. 12, June 1989, I helped prepare and review Table 1 on page 8, entitled, "Average Daily Sewage Flow" ("Table 1"), and am familiar with the meanings intended by the drafters of the words used in Table 1.

6. The purpose of Table 1 was to classify various businesses according to the anticipated maximum waste water and sewage flow quantities per day so that septic systems would be designed to handle those flows, called "hydraulic loadings." As one of the drafters, I participated in classifying the businesses shown on Table 1 and am familiar with the basis for those classifications.

7. Table 1 of Bulletin No. 12, June 1989, contained a reference to dental offices: "Dental office (chair)." In drafting Table 1, I understood the term "chair" to refer not to any kind of chair, but only to the patient chairs (like the ones that I had seen in my dentist's office). Those patient chairs had attached basins that provided a continuous stream of water

to wash the basin clean after the patient spit into the basin during the cleaning or repair of his or her teeth. The stream of water in the basin flowed continuously during the workday whether or not a patient was actually in the chair at the time. In drafting Table 1 of Bulletin No. 12, June 1989, my colleagues who participated in the drafting of Table 1 and I approved such a high hydraulic loading for the dental patient chairs (500 gallons per unit per day) because we intended that septic systems be designed with enough capacity to handle the continuous flows of waste water generated by the continuous flows of water in the basins attached to the patient chairs and the sinks and toilets. I believe that these basins are called "cuspidors," but I am not sure as I am not a health care professional. The hydraulic loading of 500 gallons per chair per day represented an effort on the part of the drafters of Bulletin No. 12 to quantify the probable hydraulic loading generated to the septic system by the continuous flows of water from these basins attached to the patient chairs in a dental office.

8. But for my understanding that the basins attached to the patent chairs in dental offices flowed continuously for the entire work day, I would not have approved the incorporation of the classification of dental offices with such a high hydraulic loading in the drafting of Table 1 of Bulletin No. 12, June 1989.

Further affiant saith naught.

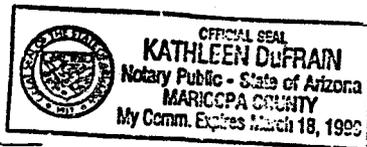
  
James A. Walters

SWORN TO and subscribed before me this 26<sup>th</sup> day of February, 1997.

  
Notary Public

My Commission Expires:

3-18-99



Doc. # 10959